A case of segmental renal dysplasia incidentally discovered in an 18 year old woman during a gynecological surgical operation

G. G. GARZETTI (*) - M. CIGNITTI (*) - A. CIAVATTINI (*)
G. GOTERI (**) - C. ROMANINI (*)

Key words: Segmental renal dysplasia; Renal malformation; Ovarian cystic disease.

INTRODUCTION

Renal dysplasia is a malformation of the kidney resulting from the failure of the metanephros to reach a normal development ([1, 2]).

This malformation can be unilateral or bilateral, total or segmental ([3, 4]).

The clinical significance of these forms depends on sites, extent, occurrence of controlateral tract anomalies, and on the presence of other systemic malformations.

In particular unilateral and segmental dysplasia may be asymptomatic or associated with aspecific urinary tract infections and abdominal pain ([3]).

This malformation is often occasionally discovered by a sonographic evaluation performed for other reasons or in a surgical and autoptic setting, and it is difficult to establish its incidence accurately ([5]).

We present a case of unilateral segmental dysplasia initially mistaken for an ovarian cystic disease.

CASE REPORT

An 18 year old white woman was admitted to the Obstetric and Gynecologic Department of Ancona University with a 13 month history of abdominal pain and menstrual irregularities. A sonographic diagnosis of ovarian cyst was made and a laparotomy was performed. A right retroperitoneal mass at a paraovaric site was found and excised, together with a fibroadipose stalk going up to the renal area.

The mass was multicystic with a maximum diameter of 8 cm and contained serous liquid. Pathologic diagnosis of renal dysplasia was formulated because of the presence of larger cysts lined by a plot epithelium, of renal glomerulous and tubules dispersed in a fibro-muscolar tissue

(*) Department of Gynecologic and Obstetrics, University of Ancona
(**) Department of Pathologic Anatomy and Histology, University of Ancona

together with small mesonephric nests and tubules (with PAS positive diastase resistent luminal material), and of primitive ducts lined by tall focally ciliated cells and surrounded by mesenchimal stroma (Fig. 1). Clinical study with computer tomography (CT) and ascendent urography revealed the absence of a controlateral kidney. The right kidney was ptotic but macroscopically normal. No urinary tract abnormalities were observed on the homolateral side.

No further treatment was given after surgery and the patient is healthy and disease free after a follow up of 15 months.

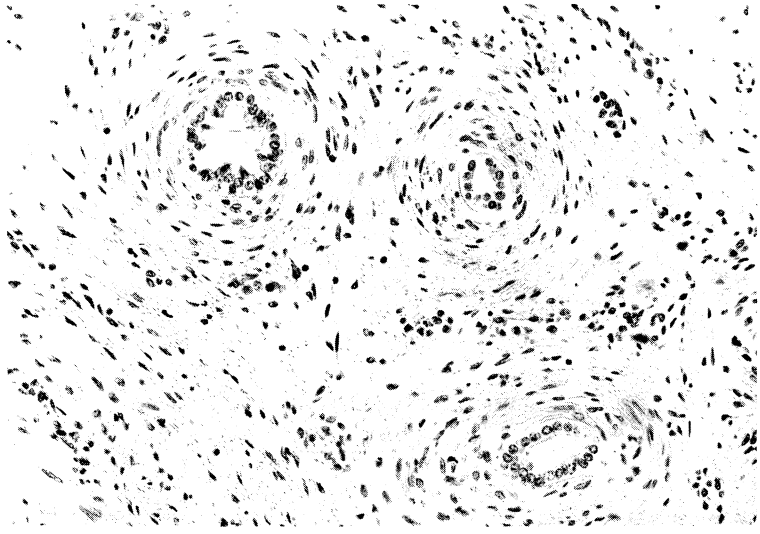

Fig. 1. — Primitive mesonephric ducts lined by columnar epithelium and surrounded by concentric layers of mesenchyme. Haematoxylin-eosin × 200. Original magnification.

CONCLUSION

Renal dysplasia is one of the most common causes of cystic renal disease in the new-born period; it appears as an abdominal mass frequently associated with urinary infections ([1, 2, 3]).

Dysplasia may affect one or both kidneys completely but may also occur segmentally or even focally ([6]).

It is frequently associated with ureteral abnormalities such as obstruction of ureteral pelvic function, ureteral atresia or urethral obstruction; although it may be ignored and discovered incidentally at an adult age.

We reported the case of an 18 year old woman with a retroperitoneal paraovaric cyst which proved to be a segmental renal dysplasia. Clinically, the patient presented abdominal pain and menstrual irregularities without urinary involvement, and the cystic mass was initially regarded as an adnexal cyst (sonographic evaluation). After surgery, a clinical evaluation (CT and ascendent urography) was performed revealing the absence of a controlateral kidney. No abnormalities of the urinary tract were observed.

In conclusion, renal dysplasia represents a very uncommon cause of abdominal or pelvic retroperitoneal cystic mass, and its correct clinical interpretation may be very difficult without urinary symptoms. However the diagnosis of renal dysplasia is ultimately a histologic one.

REFERENCES

1) Bernstein J.: "The morphogenesis of renal parenchymal maldevelopment (renal dysplasia)". *Ped. Clin. North. Am., 18,* 395, 1971.
2) Crocker J. F. S., Brown D. M., Vernier R. L.: "Development defects of the kidney: a review of renal development and experimental studies of maldevelopment". *Ped. Clin. North. Am., 18,* 355, 1971.
3) Ambrose S. S., Gould R. A., Trulock T. S., Parrott T. S.: "Unilateral multicistic renal disease in adults". *J. Urol., 128,* 366, 1982.
4) Taxy J. B.: "Renal dysplasia: a review" *Pathology Annual, 20,* 139, 1985.
5) Kurtz R. J., Heiman T. M., Holt J., Beck A. R.: "Mesenteric and retroperitoneal cysts". *Arch. Surg., 203,* 109, 1986.
6) Risdon R. A.: "Renal dysplasia. I A clinicopathological study of 76 cases. II A necropsy study of 41 cases". *J. Clin. Pathol., 24,* 57, 1971.

Address reprint requests to:
G. G. GARZETTI
Department of Gynecology and Obstetrics
University of Ancona
Via F. Corridoni, 11
60123 Ancora (Italy)